

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

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Ecolab USA Inc. and Kleancheck Systems,  
LLC,

Plaintiffs,

v.

Diversey, Inc.,

Defendant.

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Case No. 12-CV-1984 (SRN/JJG)

**MEMORANDUM OPINION  
AND ORDER**

Anthony R. Zeuli, Rachel K. Zimmerman, and Eric R. Chad, Merchant & Gould P.C.,  
3200 IDS Center, 80 South Eighth Street, Minneapolis, Minnesota 55402, for Plaintiffs.

Andrew D. Sorensen, Ecolab Inc., 655 Lone Oak Drive, Eagan, Minnesota 55121, for  
Plaintiffs.

Allen A. Arntsen, Naikang Tsao, and Stephan J. Nickels, Foley & Lardner LLP, 150 East  
Gilman Street, Suite 5000, Madison, Wisconsin 53703, for Defendant.

R. Jan Pirozzolo-Mellowes, Foley & Lardner LLP, 777 East Wisconsin Avenue,  
Milwaukee, Wisconsin 53202, for Defendant.

Andrew M. Gross, Foley & Lardner LLP, 321 North Clark Street, Suite 2800, Chicago,  
Illinois 60654, for Defendant.

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SUSAN RICHARD NELSON, United States District Judge

**I. INTRODUCTION**

This matter is before the Court on Defendant's Motion for Claim Construction

[Doc. No. 46] and Plaintiffs' Motion for Claim Construction [Doc. No. 49].

## II. BACKGROUND

This litigation involves allegations by Plaintiffs Ecolab USA Inc. and Kleantech Systems, LLC, that Defendant Diversey, Inc., is infringing, contributing to the infringement of, and/or inducing the infringement of, U.S. Patent No. 7,718,395 B2 (the “’395 Patent”) and U.S. Patent No. 7,780,453 B2 (the “’453 Patent”). (Compl. ¶¶ 10, 26 [Doc. No. 1].) The ’395 Patent, entitled “Monitoring Cleaning of Surfaces,” issued on May 18, 2010. (Id., Ex. A [Doc. No. 1-1].) The ’453 Patent, also entitled “Monitoring Cleaning of Surfaces,” issued on August 24, 2010. (Id., Ex. B [Doc. No. 1-2].) These patents stem from the same parent application. (See id., Exs. A & B.) The Abstract of both Patents reads:

A method for monitoring cleaning of a surface includes applying an amount of transparent indicator material to an area of a surface and measuring the amount of transparent indicator material remaining on the surface. The transparent indicator material may be fixed on the surface by drying and, when a fluorescent material, may be measured through exposure to ultraviolet radiation.

(Id.) The terms that are presently in dispute occur in claims 1, 23, and 26, among others, of the ’395 Patent<sup>1</sup>:

1. A method for determining if a surface has been cleaned, the method comprising:

applying an amount of transparent indicator material to one or more discrete target sites on one or more environmental surfaces, the amount of transparent indicator material being applied to the one or more discrete target sites on the one or more environmental surfaces with a non-contact applicator; and

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<sup>1</sup> While the parties use these claims for sample language in their Joint Claim Construction Statement, they note that the disputed terms also appear in various other claims of the ’395 Patent.

determining if any of the transparent indicator material remains on the one or more discrete target sites on the one or more environmental surfaces after one or more opportunities to clean the environmental surface by environmental services staff, thereby providing a cleanliness result.

....

23. A method according to claim 1, wherein the transparent indicator material resists dry abrasion.

....

26. A method according to claim 1, wherein the transparent indicator material is colorless.

(Id., Ex. A at col. 9, ll. 21–34 & col. 10, ll. 35–36, 44–45 [Doc. No. 1-1].) The parties also dispute terms that occur in claims 1 and 23, among others, of the '453 Patent<sup>2</sup>:

1. A method for evaluating cleaning improvement interventions, the method comprising:

applying a contiguous amount of transparent indicator material to one or more target sites of one or more environmental surfaces, the amount of transparent indicator material being applied to the one or more target sites of the one or more environmental surfaces with a non-contact applicator; and

determining if any of the transparent indicator material remains on the one or more target sites of the one or more environmental surfaces after one or more opportunities to clean the one or more environmental surfaces by environmental services staff, thereby providing a cleanliness result.

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<sup>2</sup> Again, while the parties use these claims for sample language in their Joint Claim Construction Statement, they note that the disputed terms also appear in various other claims of the '453 Patent.

23. The method of claim 8, wherein determining if any transparent indicator material remains on the one or more target sites includes exposing the one or more target sites to UV radiation.

(Id., Ex. B at col. 9, ll. 33–45 & col. 10, ll. 47–50 [Doc. No. 1-2].)

The prosecution history in this case primarily consists of two United States Patent and Trademark Office (“USPTO”) office actions regarding the ’395 Patent application, and the applicant’s responses thereto. On February 27, 2009, the USPTO examiner issued a Final Office Action rejecting various claims, including claim 1, as obvious in light of the following prior art: U.S. Patent No. 2,600,221 (“Domingo”), U.S. Patent No. 3,309,274 (“Brilliant”), and U.S. Patent No. 3,716,488 (“Kolsky”). (Tsao Decl., Ex. 3 at 5 [Doc. No. 51-3].) In his April 27, 2009, Response, the applicant amended claim 1, in relevant part, as follows:

A method for monitoring cleaning of a surface, the method comprising:

applying ~~an~~ a contiguous amount of transparent indicator material to one or more target sites on at least a portion of an one or more environmental surface surfaces, the amount of transparent indicator material being applied to the one or more target site on the one or more environmental surfaces with a non-contact applicator . . . .

(Id., Ex. 4 at 3 [Doc. No. 51-4].) In arguing that the amended claim 1 was allowable over the prior art, the applicant stated:

Amended claim 1 defines, in relevant part a method for monitoring cleaning of a surface including applying a contiguous amount of transparent indicator material to one or more target sites on one or more environmental surfaces, and determining if any of the transparent indicator material remains on the target sites after one or more opportunities to clean the environmental surface by environmental services staff. By determining whether any of the transparent indicator material remains, the method

provides a cleanliness result. The transparent indicator material is applied using a non-contact applicator.

Domingo does not teach such a method. Rather, Domingo teaches a method of detecting organic and inorganic material adhering to the surface of an article (i.e., a utensil). In particular, Domingo sprays or immerses a utensil . . . with/within a solution that chemically combines or absorbs into food particles . . . .

Nowhere does Domingo teach or suggest applying a contiguous amount of transparent indicator material to target sites on an environmental surface using a non-contact applicator, as required by amended claim 1. Rather, as mentioned above, Domingo uses one of two methods to apply the solution – spraying or submerging . . . . As one may expect, because spraying creates individual droplets of solution, spraying the utensil will not provide a contiguous amount of material. At best, the solution will be applied as a series of individual drops of solution. Additionally spraying the utensil in this manner will make it nearly impossible to apply the solution to specific target sites on the utensil. Instead, the coverage of the spray will likely encompass all or nearly all of the utensil. In fact, in order to accurately detect uncleaned utensils, Domingo must cover the entire surface area of the utensil (not merely target sites) so that food particles are not missed.

Furthermore, Domingo's second application method (e.g., submerging or soaking the entire object to be inspected in the solution) is also unable to apply the solution to target sites – the entire utensil will be covered with the solution. Additionally, immersing is not suitable for environmental surfaces. . . . Therefore, Domingo's second application method does not apply the solution to target sites and is clearly not suitable for the method claimed within amended claim 1.

. . . .

Moreover, Brilliant applies the dye using either a mouthwash, which soaks the entire oral cavity, or a toothbrush or swab. As discussed above, methods that require the entire area to be soaked are not applicable to the method claimed within amended claim 1 (e.g., it is not practical to soak [an] entire hospital room with dye). Additionally, the toothbrush or swab used by Brilliant would act as contact applicators (e.g., they must contact the teeth/gums in order to apply the dye), which is in direct contrast to the present claims which require the use of a non-contact applicator.

....

Kolsky also fails to teach or suggest the deficiencies of Domingo and Brilliant. . . . The shampoo composition may be applied to the carpet via an aerosol container or a sponge if the composition is in liquid form . . . . Like Domingo and Brilliant, nowhere does Kolsky teach or suggest applying a contiguous amount of transparent indicator material to target sites on an environmental surface using a non-contact applicator. Rather, Kolsky either uses an aerosol spray or a contact applicator such as a sponge or a brush. As described above sprays do not apply a contiguous amount (i.e., the aerosol generates a plurality of droplets) and the sponge/brush are not non-contact (e.g., the sponge or brush must make contact with the carpet).

Additionally, even Kolsky's aerosol version requires some contact with the environmental surface. In particular, because Kolsky's composition is a shampoo composition, the user must scrub the solution into the carpet in order to clean the carpet. . . . As discussed above, this is in direct contrast to the present claims which require a non-contact applicator.

(Id. at 11–13 (emphases in original).) After describing amended claim 1 again, the applicant went on to discuss U.S. Patent No. 6,476,385 (“Albert”), a fourth reference to prior art:

Nowhere does Albert teach or suggest applying a contiguous amount of composition using a non-contact applicator. As discussed above and in a manner similar to the Domingo, Brilliant and Kolsky references, Albert either applies the solution using a contact applicator (e.g., a pen, wax crayon, roller, etc.), or using a spray applicator, which does not apply a contiguous amount of composition (it applies the composition as a series of individual drops of solution). . . .

(Id. at 15.)

On July 24, 2009, the USPTO examiner again rejected various claims as obvious in light of Domingo, Brilliant, Kolsky, and Albert. (Id., Ex. 5 at 7–8 [Doc. No. 51-5].) In his October 26, 2009, Response, the applicant again amended claim 1, in relevant part, as follows:

A method for ~~monitoring cleaning of a~~ determining if a surface has been cleaned, the method comprising:

applying a ~~contiguous~~ an amount of transparent indicator material to one or more discrete target sites on one or more environmental surfaces, the amount of transparent indicator material being applied to the one or more discrete target sites on the one or more environmental surfaces with a non-contact applicator . . . .

(Id., Ex. 6 at 3 [Doc. No. 51-6].) In arguing that the amended claim 1 was allowable over the prior art, the applicant stated:

Amended claim 1 defines, in relevant part, a method for determining if a surface is being cleaned including applying an amount of transparent indicator material to one or more discrete target sites on one or more environmental surfaces, and determining if any of the transparent indicator material remains on the target sites after one or more opportunities to clean the environmental surface by environmental services staff. By determining whether any of the transparent indicator material remains, the method provides a cleanliness result. The transparent indicator material is applied using a non-contact applicator.

Domingo does not teach such a method. Rather, Domingo teaches a method of detecting organic and inorganic material adhering to the surface of an article (i.e., a utensil). In particular, Domingo sprays or immerses a utensil . . . with/within a solution that chemically combines or absorbs into food particles . . . .

Nowhere does Domingo teach or suggest applying an amount of transparent indicator material to discrete target sites on an environmental surface using a non-contact applicator, as required by amended claim 1. Rather, as mentioned above, Domingo uses one of two methods to apply the solution – spraying or submerging . . . . As one may expect, because spraying creates individual droplets of solution, spraying the utensil will not allow the material to be applied to discrete target sites. Instead, the coverage of the spray will not be accurate enough to apply to discrete target sites because the droplets, once leaving the nozzle, cannot be adequately controlled. Additionally, the spray coverage will likely encompass all or nearly all of the utensil – not just a discrete target site. In fact, in order to accurately detect uncleaned utensils, Domingo must cover the entire surface

area of the utensil (not merely discrete target sites) so that food particles are not missed.

Furthermore, Domingo's second application method (e.g., submerging or soaking the entire object to be inspected in the solution) is also unable to apply the solution to discrete target sites – the entire utensil will be covered with the solution. Additionally, as discussed in Applicant's response to the office action dated February 24, 2009, immersing is not suitable for environmental surfaces. . . . Therefore, Domingo's second application method does not apply the solution to discrete target sites and is clearly not suitable for the method claimed within amended claim 1.

....

Moreover, Brilliant applies the dye using either a mouthwash, which soaks the entire oral cavity, or a toothbrush or swab. As discussed above, methods that require the entire area to be soaked are not applicable to the method claimed within amended claim 1 (e.g., it is not practical to soak [an] entire hospital room) and clearly do not apply material to discrete target sites as required by the present claims. Additionally, the toothbrush or swab used by Brilliant would act as contact applicators (e.g., they must contact the teeth/gums in order to apply the dye), which is in direct contrast to the present claims which require the use of a non-contact applicator.

....

Kolsky also fails to teach or suggest the deficiencies of Domingo and Brilliant. . . . The shampoo composition may be applied to the carpet via an aerosol container or a sponge if the composition is in liquid form . . . . Like Domingo and Brilliant, nowhere does Kolsky teach or suggest applying an amount of transparent indicator material to discrete target sites on an environmental surface using a non-contact applicator. Rather, Kolsky either uses an aerosol spray or a contact applicator such as a sponge or a brush. As described above sprays are not able to apply material to a discrete target site and the sponge/brush are not non-contact (e.g., the sponge or brush must make contact with the carpet).

Additionally, even Kolsky's aerosol version requires some contact with the carpet. In particular, because Kolsky's composition is a shampoo composition, the user must scrub the solution into the carpet in order to clean the carpet. . . . As discussed above, this is in direct contrast to the present claims which require a non-contact applicator.



....

Like Domingo, Brilliant, and Kolsky, Albert does not teach or suggest applying an amount of composition to a discrete target site using a non-contact applicator. Rather, Albert either applies the solution using a contact applicator (e.g., a pen, wax crayon, roller, etc.), or using a spray applicator, which is unable to apply Albert's solution to a discrete target site. As one may expect, the spray applicator will simply apply the solution in [a] relatively uncontrollable fashion to a rather large surface area – not to a discrete target site, as required by the present claims. . . .

(Id. at 16–20 (emphases in original).)

### III. DISCUSSION

Patent claim construction, i.e., the interpretation of the patent claims that define the scope of the patent, is a matter of law for the court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970–71 (Fed. Cir. 1995), aff'd, 517 U.S. 370 (1996). Proper claim construction requires an examination of the intrinsic evidence of record, including the claim language, the specification, and the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). The starting point for claim construction is a review of the words of the claims themselves. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted); see also Vitronics, 90 F.3d at 1582 (“First, we look to the words of the claims themselves, both asserted and unasserted, to define the scope of the patented invention.”). The words of a claim generally carry “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” Phillips, 415 F.3d at 1313. Claims must also be read in view of the specification. Id. at 1315. The specification is “the

single best guide to the meaning of a disputed term.’” Id. (quoting Vitronics, 90 F.3d at 1582). The specification may prescribe a special definition given to a claim term or a disavowal of claim scope by the inventor. Id. at 1316. In such cases, the inventor’s intention that is expressed in the specification is dispositive. Id. The Court may not, however, import limitations from the specification into the claims. Id. at 1323. In addition, the Court should also consider the patent’s prosecution history, which provides evidence of how the USPTO and the inventor understood the patent. Id. at 1317.

The Court may, in its discretion, consider extrinsic evidence, though such evidence is less reliable than intrinsic evidence. Id. at 1317–18. In most situations, however, intrinsic evidence will resolve any ambiguity in a disputed term, and when it does so, it is improper to rely on extrinsic evidence. Vitronics, 90 F.3d at 1583. The Court may use a dictionary or technical treatise to “assist in understanding the commonly understood meaning” of a term, so long as any meaning found in such sources does not contradict the definition that is found in the patent documents. Phillips, 415 F.3d at 1322–23.

The parties in this litigation dispute the following terms from the Patents-in-Suit: “non-contact applicator,” “transparent,” “target site(s),” “discrete” or “discrete target sites,” “contiguous amount” or “contiguous amount of transparent indicator material,” “cleanliness result,” “resists dry abrasion,” and “colorless.”

**A. “Non-Contact Applicator”**

The parties dispute the meaning of the term “non-contact applicator” as it appears in claim 1, and others, of the ’395 Patent and the ’453 Patent.<sup>3</sup> (See Joint Claim Construction Statement (“Joint Statement”) at 32 [Doc. No. 45].) Plaintiffs assert that the Court should construe “non-contact applicator” as “[a]n applicator that does not need to touch the environmental surface in order to apply the transparent indicator material thereon.” (*Id.*) Plaintiffs argue that this definition reflects the ordinary meaning of the term and is consistent with the specifications in the Patents-in-Suit, as well as with the prosecution history. (Pls.’ Opening Mem. in Supp. of Their Claim Construction Positions (“Pls.’ Supp. Mem.”) at 24–25 [Doc. No. 50].)

Defendant asserts that the Court should construe “non-contact applicator” as “a device, other than a sprayer, that applies material to a surface without touching the surface.” (Joint Statement at 32 [Doc. No. 45].) Defendant argues that the prosecution history and the applicant’s recent testimony support this construction. (See Def.’s Opening Claim Construction Br. (“Def.’s Supp. Mem.”) at 4–16 [Doc. No. 48].)

The Court agrees with Plaintiffs’ proposed construction. The claims themselves do not exclude sprayers from the scope of “non-contact applicator,” and there is no question that sprayers fall within the ordinary meaning of that term. In addition, nothing in the specifications or prosecution history of the Patents-in-Suit, or in the applicant’s

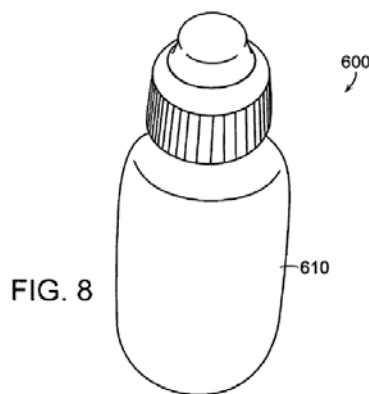
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<sup>3</sup> The parties state that the disputed term “non-contact applicator” also appears in asserted claims 27 and 32 of the ’395 Patent, and is incorporated into all dependent claims of the ’395 Patent and the ’453 Patent which depend from claims 1, 27, and 32 of the ’395 Patent and claim 1 of the ’453 Patent. (See Joint Statement at 32 n.6 [Doc. No. 45].)

testimony, demonstrates the applicant’s intent to give the term anything other than its ordinary meaning or to specifically exclude all sprayers as non-contact applicators.

### 1. Specification

The specifications in the Patents-in-Suit do not define “non-contact applicator.” However, the parties refer to the specifications to support the portions of their respective constructions that dictate whether a “non-contact applicator” is an applicator that “does not need to touch the environmental surface” or is one that applies material “without touching the surface.” In particular, the parties point to Figure 8:



(Pls.’ Supp. Mem. at 25 [Doc. No. 50]; Def.’s Resp. in Opp. to Pls.’ Mot. for Claim Construction (“Def.’s Resp.”) at 2 [Doc. No. 55].) According to the specifications, “FIG. 8 illustrates an applicator 600 for controllably applying a composition or targeting solution 610 for monitoring cleaning of a target such as toilet target 446. In FIG. 8, the applicator 600 is a plastic squeeze bottle.” (Compl., Ex. A at col. 6, ll. 1–4 [Doc. No. 1-1]; *id.*, Ex. B at col. 6, ll. 12–15 [Doc. No. 1-2].) Plaintiffs argue that Defendant’s proposed construction would read the preferred embodiment in Figure 8 out of the claims because the applicator depicted in Figure 8 could be pressed against an environmental surface when applying the

transparent indicator material. (Pls.’ Supp. Mem. at 26 [Doc. No. 50].) Defendant counters that, as long as the applicator depicted in Figure 8 is used to apply the transparent indicator material without touching the surface, it is being used as a “non-contact applicator” under Defendant’s construction and, therefore, no embodiment is read out of the claims. (Def.’s Resp. at 2 [Doc. No. 55].)

The Court finds that Plaintiffs’ proposed construction is the most appropriate because it is consistent with the specifications. Defendant’s construction, on the other hand, would exclude the preferred embodiment depicted in Figure 8 of the Patents-in-Suit in certain circumstances. As noted by the Federal Circuit, “[a] claim construction that excludes a preferred embodiment . . . ‘is rarely, if ever, correct.’” SanDisk Corp. v. Memorex Prods., Inc., 415 F.3d 1278, 1285 (Fed. Cir. 2005) (quoting Vitronics Corp., 90 F.3d at 1583). In addition, Plaintiffs’ interpretation is consistent with the prosecution history of the ’395 Patent, in which the applicant described the sponge or brush used in the Kolsky prior art reference as “not non-contact” because the sponge or brush “must make contact” with the surface to which the composition is applied. Therefore, the Court finds that the proper construction of “non-contact applicator” includes language stating that the applicator “does not need to touch” a surface in order to apply the indicator material.

## **2. Prosecution history**

The more contentious issue with respect to the term “non-contact applicator” is whether it should be construed to include or exclude “sprayers” from its definition. Defendant argues that such a limitation should be read into the claim term because the

applicant disclaimed sprayers from the scope of the claimed invention during prosecution of the '395 Patent. (Def.'s Supp. Mem. at 3–4 [Doc. No. 48].) In support of its argument, Defendant relies primarily on the applicant's responses to the USPTO examiner's rejections of certain claims as obvious over prior art. (See id. at 5–8.) Plaintiffs, on the other hand, assert that the applicant's statements in the prosecution history merely characterize the method of claim 1 of the invention and address the disclosure of the prior art references without imposing a limitation on the type of device that can be used as a non-contact applicator. (See Pls.' Resp. to Def.'s Opening Claim Construction Br. ("Pls.' Resp.") at 2–9 [Doc. No. 56].)

The Federal Circuit has stated that only “a ‘clear and unmistakable’ disavowal during prosecution overcomes the ‘heavy presumption that claim terms carry their full ordinary and customary meaning.’” Biogen Idec, Inc. v. GlaxoSmithKline LLC, 713 F.3d 1090, 1095 (Fed. Cir. 2013) (quoting Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323, 1326 (Fed. Cir. 2003)). “Thus, when the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered.” Id. (citation omitted) (emphasis added). On the other hand, “[p]rosecution disclaimer does not apply to an ambiguous disavowal.” Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1375 (Fed. Cir. 2008) (citation omitted). Therefore, it “does not apply, for example, if the applicant simply describes features of the prior art and does not distinguish the claimed invention based on those

features.” Id. (citation omitted). Nor does it apply where an inventor’s statements are subject to multiple reasonable interpretations. See N. Telecom Ltd. v. Samsung Elecs. Co., 215 F.3d 1281, 1294–95 (Fed. Cir. 2000).

The clarity required by the Federal Circuit to transform a statement made during prosecution into a disclaimer is demonstrated in ERBE Elektromedizin GmbH v. Canady Technology LLC, 629 F.3d 1278 (Fed. Cir. 2010), and Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366 (Fed. Cir. 2008). In ERBE, the Federal Circuit affirmed the district court’s construction of the claim term “low flow rate” as “a rate of flow less than about 1 liter/minute and producing flow velocities less than 19 km/hour such that the gas exiting through the distal end opening forms a non-laminar inert gas temperature,” over a proposed construction that did not include specific numerical rates. 629 F.3d at 1283. In response to the USPTO’s rejection of claims as obvious in light of prior art disclosing the use of very low flow rates, the applicants had stated that the claimed flow rate avoided the production of laminar jets. Id. at 1285. The prior art contemplated a flow rate of 1 to 12 liters per minute, which, according to the applicants, would lead to a flow velocity of 19 to 229 km/hour and “would certainly be classified as laminar jets.” Id. Based on this language, the Federal Circuit found an unequivocal disclaimer of flow rates from 1 to 12 liters per minute that lead to velocities of 19 to 229 km/hour (laminar jets). Id. at 1286.

The disclaimer in Computer Docking was similarly unequivocal. In that case, the district court construed the term “portable computer” to mean “a computer without a built-in display or keyboard that is capable of being moved or carried about.” 519 F.3d at

1379. During prosecution, the USPTO rejected several claims as obvious in view of prior art disclosing a laptop computer and docking module. Id. at 1372. In response, the applicants differentiated their claimed invention from “peripheral devices,” which they defined to include a keyboard and display. Id. at 1376. The applicants also contrasted the claimed invention with laptops, stating that the claimed invention required peripherals to be made available, that higher quality peripherals would be used with the claimed invention as compared to a laptop, and that the claimed invention conceded the portability of peripherals whereas laptops make concessions in memory and display. Id. Based on these statements, the district court imported the “without a built-in display or keyboard” language into the definition of “portable computer.” Id. at 1372. The Federal Circuit affirmed, finding that the applicants “clearly and unambiguously disavowed computers with built-in displays and keyboards.” Id. at 1376.

On the other hand, Northern Telecom Ltd. v. Samsung Electronics Co., 215 F.3d 1281 (Fed. Cir. 2000), provides an example of an ambiguous disavowal insufficient to create a prosecution history disclaimer. In that case, the Federal Circuit affirmed the trial court’s construction of the claim term “plasma etching” to refer to a chemical process that does not necessarily exclude the process of ion bombardment. Id. at 1285, 1297. While the applicant stated during prosecution that the prior art references, which disclosed ion bombardment, were “concerned with a totally different process,” the applicant also stated that plasma was “part” of the etching process in the claimed invention. Id. at 1294 (citation omitted). The Federal Circuit found that the latter statement described a feature



of the claimed invention and did not exclude the possibility of ion bombardment. Id. In addition, the court determined that the former statement was used only to describe the prior art and that the applicant did not clearly explain the specific manner in which the prior art differed from the claimed invention. Id. While one plausible interpretation of the prosecution history was the defendant’s contention that the presence of ion bombardment created “a totally different process,” there were also other plausible explanations. Id. Under such circumstances, there was no reasonably clear and deliberate disclaimer of ion bombardment from the scope of “plasma etching.” Id. at 1294–95; see also Purdue Pharma L.P. v. Endo Pharm. Inc., 438 F.3d 1123, 1136 (Fed. Cir. 2006) (declining to narrow the scope of a claim term by adding a specific feature to the definition where the applicant had not described the feature as “necessary” to the claimed invention during prosecution).

This Court finds no clear and unmistakable disavowal of claim scope in the prosecution history in this case sufficient to overcome the heavy presumption that “non-contact applicator” carries its ordinary meaning.<sup>4</sup> While Defendant likens this case to cases such as ERBE and Computer Docking, where the court found prosecution history disclaimer, (see Def.’s Supp. Mem. at 9–11 [Doc. No. 48]), the disclaimers in those cases were based on much clearer language than that used by the applicant here. In ERBE, a numerical rate of flow was read into the claim term “low flow rate” because the

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<sup>4</sup> The applicant’s arguments made in response to the July 24, 2009, Office Action for the most part mirror the applicant’s arguments previously made in response to the February 27, 2009, Final Office Action. Therefore, the Court will refer only to the former for purposes of this analysis.

applicants had expressly distinguished their claimed invention from the prior art by referring to that numerical rate. Likewise, in Computer Docking, the court construed the claim term “portable computer” to exclude certain features because the applicants had expressly described their claimed invention as being separate from those features. Here, however, the applicant did not expressly distinguish the claimed invention from sprayers in general. Rather, the applicant discussed whether the prior art taught a method of applying material to discrete target sites using a non-contact applicator. For some of the prior art references, this analysis included a discussion of whether a particular sprayer could apply a particular material to a discrete target site. For example, the sprayer disclosed in Domingo was an industrial sprayer that was capable of applying solution over the entire surface of a tank, the sprayer disclosed in Kolsky was an aerosol sprayer used to apply carpet shampoo, and the sprayer depicted in Albert was a pump sprayer. (See Pls.’ Resp. at 7 & n.2 [Doc. No. 56]; Def.’s Supp. Mem. at 13 [Doc. No. 48].) However, as noted by Plaintiffs, “[w]hether a particular spray method is capable of applying a particular material contiguously or to a discrete target site . . . is a different question than whether a spray applicator can be a ‘non-contact applicator,’” (Pls.’ Resp. at 5 [Doc. No. 56]), and none of the applicant’s statements unequivocally and unambiguously state that sprayers are not “non-contact applicators.”

Contrary to Defendant’s arguments, the applicant’s statements actually exclude sprayers as contact applicators. For example, when discussing the prior art reference in Kolsky, the applicant stated that “Kolsky either uses an aerosol spray or a contact

applicator such as a sponge or a brush.” And, when discussing the prior art reference in Albert, the applicant stated that “Albert either applies the solution using a contact applicator (e.g., a pen, wax crayon, roller, etc.), or using a spray applicator, which is unable to apply Albert’s solution to a discrete target site.”

At best, and as discussed below, the prosecution history establishes that the applicant in this case excluded sprayers that are not capable of applying a particular material contiguously or to a discrete target site, like the sprayers described in the prior art references. At the very least, the applicant’s statements regarding “spray” are subject to multiple reasonable interpretations as were the applicant’s statements about “plasma etching” in Northern Telecom, and, therefore, are ambiguous. Accordingly, prosecution history disclaimer does not apply in this instance to import the limitation “other than a sprayer” into the claim term “non-contact applicator.”

### **3. Applicant’s testimony**

In addition to the intrinsic evidence discussed above, Defendant also asserts that the inventor’s testimony during this litigation supports excluding sprayers from the term “non-contact applicator.” (See Def.’s Supp. Mem. at 14–16 [Doc. No. 48].) Because inventor testimony is external to the patent and prosecution history, it is considered extrinsic evidence. Phillips, 415 F.3d at 1317. Such evidence is less significant than intrinsic evidence when determining the meaning of claim language, and “it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” Id. at 1319.

In this case, Defendant points to the inventor’s testimony that he never considered using a sprayer when testing the invention, but instead used the plastic squeeze bottle depicted in the specification of the Patents-in-Suit because it worked and he wanted to continue developing the invention. (Def.’s Supp. Mem. at 14–16 [Doc. No. 48] (citation omitted).) However, this statement does not evidence an intent that only a plastic squeeze bottle be used in the invention or that a sprayer never be used as a part of the invention. Rather, the inventor’s testimony appears to merely describe his preferred embodiment of the claimed invention.

This testimony is consistent with the prosecution history, as discussed above, and also with the specification language in the Patents-in-Suit, which states that “FIG. 8 illustrates an applicator 600 for controllably applying a composition or targeting solution.” (Compl., Ex. A at col. 6, ll. 1–2 [Doc. No. 1-1] (emphasis added); id., Ex. B at col. 6, ll. 12–13 [Doc. No. 1-2] (emphasis added).) The specification language does not state that Figure 8 depicts the only permissible applicator, and “[the Federal Circuit has] expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” Phillips, 415 F.3d at 1323; see Computer Docking, 519 F.3d at 1374 (stating that a court must not “import[] . . . claim limitations from a few specification statements or figures into the claims, particularly if those specification extracts describe only embodiments of a broader claimed invention”) (internal citations omitted).

For these reasons, the Court finds that Plaintiffs’ proposed construction is appropriate and that “non-contact applicator” is properly construed as “an applicator that does not need to touch the environmental surface in order to apply the transparent indicator material thereon.”

**B. “Transparent”**

The parties also dispute the meaning of the term “transparent,” which appears in every claim of the Patents-in-Suit. (Pls.’ Supp. Mem. at 11 [Doc. No. 50]; Def.’s Supp. Mem. at 18 [Doc. No. 48].) Plaintiffs assert that the Court should construe “transparent” as “[w]hen applied to a target site, capable of transmitting light so that objects and images beyond can be clearly perceived; not opaque.” (Joint Statement at 2 [Doc. No. 45].) Defendant asserts that the Court should construe “transparent” as “capable of transmitting light so that objects and images beyond can be clearly perceived.” (Id.)

At the hearing on this matter, Plaintiffs agreed to eliminate “not opaque” from their proposed construction. (See Markman Hr’g Tr. 35:12–21 [Doc. No. 61].) Therefore, the only dispute is in regard to the portion of Plaintiffs’ construction that states, “when applied to a target site.” Plaintiffs argue that the phrase is necessary to provide temporal context—i.e., when to make the determination of transparency. (Pls.’ Supp. Mem. at 11 [Doc. No. 50]). According to Plaintiffs, the purpose of the transparency of the indicator material is that the indicator material is not noticed when it is applied. (Id. at 12.) Thus, the only context in which the transparency of the indicator material matters is when it is applied to the target sites; whether the indicator material is

transparent when it is in the applicator or anywhere else is irrelevant to the inventions of the Patents-in-Suit. (Id. at 12–13.) In support of their argument, Plaintiffs point to the specifications of the Patents-in-Suit, which state that, “[w]hen the dried targeting solution is transparent, those engaged in cleaning activities are unaware of target locations.” (Compl., Ex. A at col. 6, ll. 44–46 [Doc. No. 1-1]; id., Ex. B at col. 6, ll. 55–57 [Doc. No. 1-2]; see Pls.’ Supp. Mem. at 12 [Doc. No. 50].)

On the other hand, Defendant argues that Plaintiffs are bound by the express definition of “transparent” found in the specifications of the Patents-in-Suit: “Transparent refers to capable of transmitting light so that objects and images beyond can be clearly perceived.” (Compl., Ex. A at col. 4, ll. 50–51 [Doc. No. 1-1]; id., Ex. B at col. 4, ll. 61–62 [Doc. No. 1-2]; see Def.’s Supp. Mem. at 18 [Doc. No. 48].) According to Defendant, Plaintiffs’ contention that the indicator material must be transparent only after it is applied is not only inconsistent with this definition, but also with the claims and other specifications of the Patents-in-Suit. (Def.’s Supp. Mem. at 18 [Doc. No. 48].) For example, Defendant points to claim 1 of the ’453 Patent, which requires “applying a contiguous amount of transparent indicator material to one or more target sites,” (Compl., Ex. B at col. 9, ll. 34–35 [Doc. No. 1-2]), as well as to the description of Figure 8 in the ’453 Patent, which states that Figure 8 “illustrates a dispenser of a composition containing transparent indicator material,” (id. at col. 4, ll. 34–35), for the proposition that the indicator material must also be transparent prior to application. (See Def.’s Supp. Mem. at 18–19 [Doc. No. 48].)

The Court finds that the proper construction of the claim term “transparent” is “capable of transmitting light so that objects and images beyond can be clearly perceived.” The Court declines to construe the term in such a manner as to incorporate the temporal limitation proposed by either Plaintiffs or Defendant. The purpose of claim construction is to determine what a term means; the purpose is not to determine the temporal context in which the term applies. Thus, while the Court construes the term “transparent” in accordance with Defendant’s proposed construction, which is also the definition included by the inventor in the specifications of the Patents-in-Suit, the Court does not imply that there is a requirement that the indicator material be transparent both before and after application, as Defendant proposes.

**C. “Target Site(s)”**

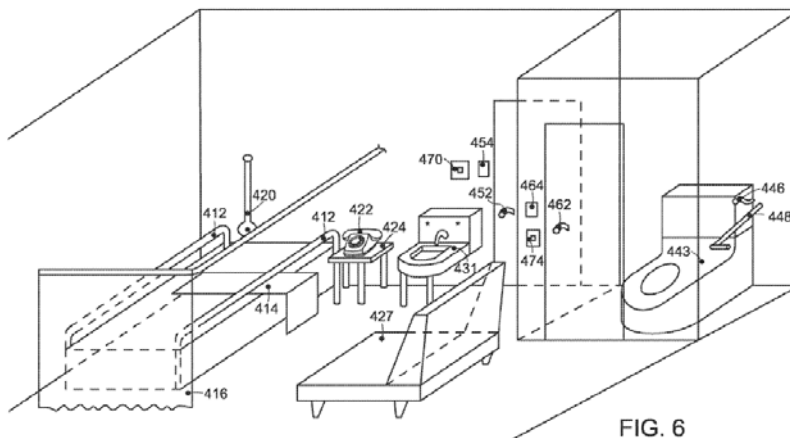
The parties dispute the meaning of the term “target site(s)” as it appears in claim 1 of the ’453 Patent.<sup>5</sup> (See Joint Statement at 4 [Doc. No. 45].) As discussed in the next section, the term is also used in conjunction with the word “discrete” in several claims in the ’395 Patent. Plaintiffs assert that the Court should construe “target site(s)” as “[p]ortion(s) of environmental surface(s).” (*Id.*) In support of their proposed construction, Plaintiffs rely on the claim language and the specifications. (Pls.’ Supp. Mem. at 13 [Doc. No. 50].) Specifically, Plaintiffs point to the language in claim 1, which requires that transparent indicator material be applied “to one or more discrete target sites on one or more environmental surfaces.” (*Id.* at 14.) Plaintiffs argue that, because the claim language

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<sup>5</sup> The parties state that the disputed term “target site(s)” also appears in asserted claims 4, 10, and 23 of the ’453 Patent, and is incorporated into all dependent claims of the

contemplates that more than one target site can be applied to a particular environmental surface, the term must be interpreted to describe less than all of the claimed surfaces. (Id.)

Plaintiffs also rely on several illustrations, including Figure 6 of the Patents-in-Suit:



(Id.) Plaintiffs argue that the depictions of the target sites demonstrate that each target site covers only a portion of a particular environmental surface. (Id. at 15.) Plaintiffs note, however, that the term should not be construed to mean only those specific target sites depicted in the specifications. (Pls.’ Resp. at 18 [Doc. No. 56].)

Defendant, on the other hand, asserts that the Court should construe “target site(s)” to mean “specific location(s).” (Joint Statement at 4 [Doc. No. 45].) In support of this construction, Defendant relies on the specifications and prosecution history. (See Def.’s Supp. Mem. at 33–36 [Doc. No. 48].) In particular, Defendant points to the descriptions of Figures 6 and 7:

FIG. 6 illustrates targets for monitoring. These targets correspond to areas of a surface and may be chosen on the basis of the recommendation from the CDC that enhanced cleaning activities should be directed at “high touch” objects (HTOs), as well on reports in the literature of sites reported

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<sup>453</sup> Patent that depend from claim 1. (See Joint Statement at 4 n.2 [Doc. No. 45].)



as being frequently contaminated with hospital associated pathogens. Such targets may include . . . .

. . . . FIG. 7 illustrates location of toilet handle target 446 on toilet handle 346 that is separated from, but in the proximity of, region 510, the area most likely to receive patient contact during use and be contaminated.

(Compl., Ex. B at col. 5, ll. 47–53 & col. 6, ll. 8–11 [Doc. No. 1-2]; see Def.’s Supp. Mem. at 33–34 [Doc. No. 48].) Defendant also asserts that, because the applicant added the term “target sites” to the claims and the black dots depicting the “target sites” to Figure 6 in his April 27, 2009, Response to the USPTO, “the applicant equated the newly claimed ‘target sites’ with the specific locations depicted by the black dots.” (Def.’s Supp. Mem. at 34–35 [Doc. No. 48].) Defendant also argues that the applicant’s discussion of the Domingo prior art in that same Response indicated that covering “nearly all”—or a “portion”—of an object would not meet the “target site” limitation. (Id. at 35–36.) Finally, Defendant argues that the phrase “of environmental surface(s)” in Plaintiffs’ proposed construction is redundant of the rest of the claim language. (Id. at 32.)

The Court finds that the term “target site(s)” has a meaning that is readily understandable and, therefore, that construction is not necessary. The parties appear to agree that the term should not be interpreted to refer to “all” of a particular object or surface. Indeed, the term “target site(s)” as used in the claims already imparts that meaning. Claim 1, for example, contemplates that more than one target site can be applied to a particular environmental surface; thus, the term “target sites” already describes less than all of the claimed surfaces.

However, each of the proposed constructions overreaches when considered in light of the claim language and specifications. On the one hand, construing the term to mean “portions,” as Plaintiffs propose, imports a broader definition than what is contemplated by the illustration in Figure 6 because a “portion” could consist of “nearly all” of a surface. Moreover, the phrase “of environmental surface(s)” is redundant of the claim language because the claims either use the phrase “one or more discrete target sites on one or more environmental areas” or use the term “discrete target sites” to refer to a previous use of “one or more discrete target sites on one or more environmental areas.”

On the other hand, Defendant’s proposed construction narrows the definition of “target sites” to those specific locations described in the specifications and illustrated in Figure 6. Not only should the Court refrain from importing claim limitations from the specifications and figures into the claims, see Computer Docking, 519 F.3d at 1374, but also the specification language itself indicates that the term should not be so limited. For example, the specifications state that “FIG. 6 illustrates typical locations of targets within a hospital room,” (Compl., Ex. A at col. 4, ll. 20–21 [Doc. No. 1-1] (emphasis added); id., Ex. B at col. 4, ll. 31–32 [Doc. No. 1-2] (emphasis added)), and that the targets illustrated in Figure 6 “may include” the listed objects, (Compl., Ex. A at col. 5, l. 42 [Doc. No. 1-1]; id., Ex. B at col. 5, l. 53 [Doc. No. 1-2]).

Thus, the constructions proposed by the parties add confusion and improperly broaden or narrow the scope of an already understandable term. For these reasons, the Court declines to construe the term “target site(s).”

**D. “Discrete” or “Discrete Target Sites”**

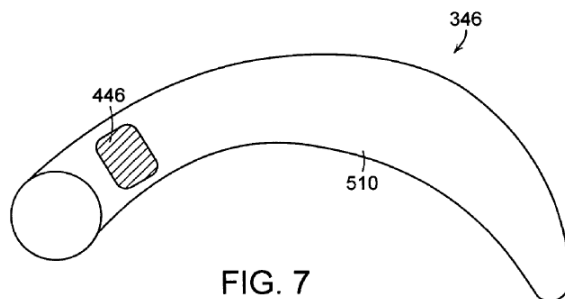
Here, the parties dispute both whether “discrete” or “discrete target sites” is the proper term for construction and the meaning of the term as it appears in claim 1 of the ’395 Patent.<sup>6</sup> (See Joint Statement at 14 & n.3 [Doc. No. 45].) As for the proper term, Plaintiffs propose “discrete,” while Defendant proposes “discrete target sites.” (Id.) While the term “target sites” is used in the ’453 Patent, as discussed above, the term “discrete target sites” is used in the ’395 Patent. Therefore, according to Defendant, the terms must be independently construed. (See Def.’s Supp. Mem. at 37 [Doc. No. 48].) However, because the ’395 Patent and the ’453 Patent share the same parent application and many common terms, the terms should be construed consistently across both patents. See NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1293 (Fed. Cir. 2005) (“Because NTP’s patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.”). The Court has already determined that the term “target sites” needs no construction. The Court similarly declines to construe the term “target sites” as used in conjunction with “discrete.” Therefore, only construction of the term “discrete” is necessary here.

Plaintiffs assert that the Court should construe “discrete” as “[d]istinct; separate.” (Joint Statement at 14 [Doc. No. 45].) Plaintiffs argue that there is no evidence in the intrinsic record that the inventor intended to give the term “discrete” a meaning other than

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<sup>6</sup> The parties state that the disputed term “discrete target sites” also appears in asserted claims 2, 11, 20, 27, and 32 of the ’395 Patent, and is incorporated into all dependent claims of the ’395 Patent which depend from claims 1, 27, and 32. (See Joint Statement at 14 n.4 [Doc. No. 45].)

its ordinary meaning. (Pls.’ Supp. Mem. at 17 [Doc. No. 50].) Thus, Plaintiffs point to a general purpose dictionary for their proposed construction. (Id.) Plaintiffs assert that this construction is also consistent with illustrations in the ’395 Patent, such as Figure 7:



(Id. at 18.) According to Plaintiffs, drawings such as this demonstrate that “discrete target sites” are “distinct areas” that are “separate from other target sites” and not overlapping. (Id.; see Pls.’ Resp. at 19 [Doc. No. 56].) Finally, Plaintiffs argue that the prosecution history also supports their construction because the applicant’s amendment adding “discrete” differentiated his invention from prior art references that taught use of indistinct target sites or nearly full coverage of a surface or object. (See Pls.’ Supp. Mem. at 18–19 [Doc. No. 50].) For example, in regard to Domingo, the applicant stated that “the spray coverage will likely encompass all or nearly all of the utensil – not just a discrete target site.” (Tsao Decl., Ex. 6 at 16 [Doc. No. 51-6].) And in regard to Albert, the applicant stated that “the spray applicator will simply apply the solution in [a] relatively uncontrollable fashion to a rather large surface area – not to a discrete target site.” (Id. at 20.)

Defendant asserts that the term “discrete” is indefinite when used in conjunction with the term “target sites.” (Def.’s Supp. Mem. at 37 [Doc. No. 48].) Defendant argues

that while the specification discusses “target sites,” it does not discuss “discrete target sites,” so there is no explanation of how the claim terms differ. (Id. at 38.) Likewise, Defendant asserts that none of the applicant’s attempts to distinguish the prior art explain the difference. (Id. at 40.) Finally, Defendant contends that Plaintiffs’ proposed construction is superfluous because “target sites” already refers to specific locations and that Plaintiffs’ construction simply exchanges one vague term (“distinct” or “separate”) for another (“discrete”). (Id. at 41–42.)

The Court does not find that the term “discrete” is indefinite when used in conjunction with “target sites.” According to the Federal Circuit, “the purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee’s right to exclude.” Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citation omitted). While claims must “clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise,” the definiteness requirement “does not compel absolute clarity.” Id. (quoting United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942)). Rather, “the definiteness of claim terms depends on whether those terms can be given any reasonable meaning.” Id. Thus, “[o]nly claims ‘not amenable to construction’ or ‘insolubly ambiguous’ are indefinite.” Id. (citations omitted).

Here, Plaintiffs’ proposed construction gives a reasonable meaning to the term “discrete.” Their construction reflects the ordinary meaning of the term and is consistent

with the intrinsic evidence of record. While neither the claim terms nor the specifications discuss the meaning of “discrete,” the applicant did distinguish his invention from the prior art during prosecution by comparing “discrete target sites” to, for example, “all or nearly all” of a surface area and “a rather large surface area.” A reasonable interpretation, then, is that “discrete” target sites means “distinct” or “separate” target sites—i.e., target sites that are not indistinct because they are touching or overlapping. Thus, “discrete” is not indefinite when used in conjunction with “target sites.”<sup>7</sup> For these reasons, the Court finds that Plaintiffs’ proposed construction is appropriate and that “discrete” is properly construed as “distinct; separate.”

**E. “Contiguous Amount” or “Contiguous Amount of Transparent Indicator Material”**

The parties dispute both whether “contiguous amount” or “contiguous amount of transparent indicator material” is the proper term for construction and the meaning of the term as it is used in claim 1 of the ’453 Patent.<sup>8</sup> (See Joint Statement at 23 & n.5 [Doc. No. 45].) As for the proper term, Plaintiffs argue for use of “contiguous amount of transparent indicator material,” while Defendant proposes use of “contiguous amount.” (Id.) Plaintiffs argue that including the extra language will solve the grammatical issues that arise when inserting separate constructions for the terms “contiguous amount” and

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<sup>7</sup> Defendant argues that, should the Court conclude that the term “discrete target sites” is not indefinite, the Court’s construction should encompass the “applicant’s admissions that liquid applied with a sprayer cannot hit a ‘discrete target site.’” (Def.’s Resp. at 7 [Doc. No. 55].) However, as discussed in Part II.A.2, the Court finds no such clear and unmistakable disavowal of sprayers.

<sup>8</sup> The parties state that the claim term also appears, either explicitly or through dependence, in every asserted claim of the ’453 Patent. (See Pls.’ Supp. Mem. at 20 [Doc.

“transparent” into the claim. (See Pls.’ Supp. Mem. at 21 [Doc. No. 50].) However, insertion of the definition proposed by Plaintiffs causes its own grammatical issues. The substituted definition of “transparent” (“capable of transmitting light so that objects and images beyond can be clearly perceived”) appears to modify the substituted definition of “contiguous amount of indicator material” (“quantity of indicator material, which is touching or in close proximity”), rather than simply “indicator material,” which is the term it is meant to modify:

Applying a [quantity of indicator material, which is touching or in close proximity, and that is capable of transmitting light so that objects and images beyond can be clearly perceived]<sup>9</sup> to one or more target sites . . . .

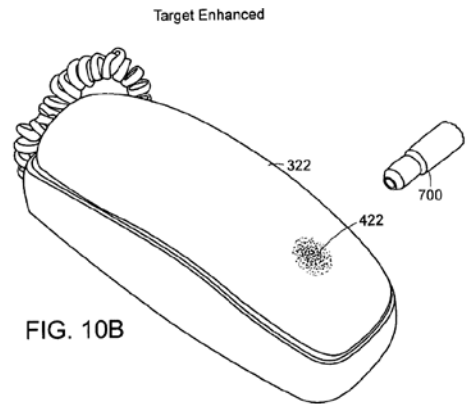
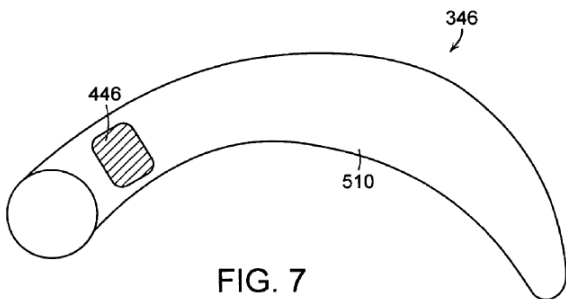
(Id.) Moreover, Plaintiffs do not propose a definition of “indicator material,” and their proposed definition of “transparent” mirrors the definition they proposed for the construction of that term on its own. Therefore, because the Court has already construed the term “transparent,” the Court finds that only construction of the term “contiguous amount” is necessary.

Plaintiffs assert that the Court should construe “contiguous amount” as “[a] quantity, which is touching or in close proximity.” (Joint Statement at 23 [Doc. No. 45].) Plaintiffs argue that their proposed construction is consistent with the specification of the ’453 Patent. (Pls.’ Supp. Mem. at 22 [Doc. No. 50].) Specifically, Plaintiffs point to Figures 7 and 10B:

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No. 50]; Def.’s Supp. Mem. at 20 [Doc. No. 48].)

<sup>9</sup> Plaintiffs included their proposed definition of “transparent”: “when applied to a target site, capable of transmitting light so that objects and images beyond can be clearly perceived; not opaque.” (Pls.’ Supp. Mem. at 21 [Doc. No. 50].) However, the Court has already construed “transparent” to mean “capable of transmitting light so that objects and images beyond can be clearly perceived.” Therefore, the Court incorporates that definition



(Id.) According to Plaintiffs, Figure 7 depicts an application of transparent indicator material that is touching in its entirety, while Figure 10B depicts applied indicator material that consists of “small droplets in close proximity.” (Id.) Therefore, Plaintiffs argue, a construction that would require the transparent indicator material to be touching in its entirety is inconsistent with the specification. (Id. at 23–24.) Plaintiffs also argue that their proposed construction is consistent with the ordinary meaning of “contiguous,” which is defined in a general dictionary as both “nearby, close” and “touching; in contact.” (Id. at 23.)

Defendant asserts that the term “contiguous amount” should be construed as “a quantity, the entirety of which is touching.” (Joint Statement at 23 [Doc. No. 45].) In support of its construction, Defendant points to the prosecution history of the ’395 Patent. (See Def.’s Supp. Mem. at 21–22 [Doc. No. 48].) According to Defendant, the applicant distinguished prior art references to Domingo, Kolsky, and Albert, on grounds that individual droplets of liquid were not a “contiguous amount,” thereby expressly disclaiming

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here.



a definition of “contiguous” that includes “in close proximity.” (Id.; Def.’s Resp. at 3–4 [Doc. No. 55].) Defendant argues that the disclaimer made during prosecution of the ’395 Patent also applies to construction of the terms of the ’453 Patent because the claim limitation in amended claim 1 of the ’395 application as stated in the April 27, 2009, Response is substantively the same as the limitation in claim 1 of the ’453 Patent. (See Def.’s Supp. Mem. at 16–17, 22 [Doc. No. 48].) In addition, Defendant asserts that Figure 10B shows the dispersion of the fluorescent marker particles in the transparent indicator material as they appear under ultraviolet light, not whether the material is applied as a “contiguous amount.” (Id. at 23; Def.’s Resp. at 4 [Doc. No. 55].) Defendant relies on the following language in the specification: “FIG. 10B shows the visibility of the . . . target 422 under ultraviolet illumination . . . .” (Compl., Ex. B at col. 7, ll. 7–8 [Doc. No. 1-2].) Finally, Defendant argues that Plaintiffs have improperly conflated two dictionary definitions of “contiguous” and that the applicant disclaimed the “in close proximity” definition during prosecution. (Def.’s Supp. Mem. at 23 [Doc. No. 48].)

The term “contiguous” is not defined in the claims of the ’453 Patent or in the specification. However, the Court finds that Defendant’s interpretation of the specification is reasonable and that the prosecution history supports Defendant’s proposed construction. While Plaintiffs point to the dictionary definitions of “contiguous” (“touching” or “in close proximity”) as evidence of the term’s ordinary meaning, that extrinsic evidence does not overcome the clear and unmistakable disavowal of claim scope regarding the term “contiguous amount” in the prosecution history of the related ’395 Patent. As the Federal

Circuit has noted, “[w]hen the application of prosecution disclaimer involves statements from prosecution of a familial patent relating to the same subject matter as the claim language at issue in the patent being construed, those statements in the familial application are relevant in construing the claims at issue.” Ormco Corp. v. Align Tech., Inc., 498 F.3d 1307, 1314 (Fed. Cir. 2007) (citations omitted). And, in distinguishing three of the prior art references in his April 27, 2009, Response to the USPTO examiner’s rejection of claims, the applicant expressly distinguished “contiguous” from “a series of individual drops” or “a plurality of droplets”:

. . . As one may expect, because spraying creates individual droplets of solution, spraying the utensil will not provide a contiguous amount of material. At best, the solution will be applied as a series of individual drops of solution. . . .

. . . .

. . . Kolsky either uses an aerosol spray or a contact applicator such as a sponge or a brush. As described above sprays do not apply a contiguous amount (i.e., the aerosol generates a plurality of droplets) . . . .

. . . .

Nowhere does Albert teach or suggest applying a contiguous amount of composition using a non-contact applicator. . . . Albert either applies the solution using a contact applicator (e.g., a pen, wax crayon, roller, etc.), or using a spray applicator, which does not apply a contiguous amount of composition (it applies the composition as a series of individual drops of solution). . . .

(Tsao Decl., Ex. 4 at 11, 13, 15 [Doc. No. 51-4].) These distinctions demonstrate the applicant’s understanding of the term “contiguous” to not include an amount of material consisting of droplets in close proximity to each other.

Plaintiffs' arguments to the contrary are not persuasive. First, Plaintiffs assert that, "[w]hile [the applicant's] attorney argued that the spray devices and methods disclosed in the referenced prior art did not apply a contiguous amount, he never argued that no sprayer could be developed capable of applying a contiguous amount." (Pls.' Resp. at 15 [Doc. No. 56].) However, this argument misses the mark. Whether a particular sprayer is capable of applying a contiguous amount of indicator material is a different inquiry than determining the proper definition of "contiguous." Second, Plaintiffs argue that, "[a]t most, [the applicant's] attorney's arguments stated the obvious—that widely dispersed droplets . . . do not qualify as a contiguous amount because they are not touching or in close proximity." (*Id.* (emphasis added).) However, the statements made no distinction between "widely dispersed" droplets and "closely dispersed" droplets. Thus, the "obvious" implication of the applicant's arguments is that dispersed (*i.e.*, individual) droplets do not qualify as a contiguous amount because they are not touching.

For these reasons, the Court concludes that the applicant unequivocally and unambiguously disavowed "in close proximity" as a possible definition of "contiguous." This disavowal during prosecution of the '395 Patent applies to the related '453 Patent. See Ormco Corp., 498 F.3d at 1314 ("[W]e have held that prosecution disclaimer may arise from disavowals made during the prosecution of ancestor patent applications.") (internal quotations and citations omitted). Accordingly, the Court finds that Defendant's proposed

construction is appropriate and that “contiguous amount” is properly construed as “a quantity, the entirety of which is touching.”

**F. “Cleanliness Result”**

The parties dispute the meaning of the term “cleanliness result” as it appears in claim 1 of the ’395 Patent and the ’453 Patent.<sup>10</sup> (See Joint Statement at 42 [Doc. No. 45].) Plaintiffs assert that the Court should construe “cleanliness result” as “[a]n analysis of a collection of cleanliness data for a given environment indicating quality and/or extent of cleaning efforts.” (Id.) On the other hand, Defendant asserts that the term “cleanliness result” should be construed to mean a “measurement of how clean a surface is, in terms of microbes on the surface.”<sup>11</sup> (Id.)

Plaintiffs argue that both the claims and specifications of the Patents-in-Suit support their proposed construction by demonstrating that a “cleanliness result” is derived from an analysis of data that has already been collected. (See Pls.’ Supp. Mem. at 27–29 [Doc. No. 50].) In particular, Plaintiffs point to claim 3 of the ’453 Patent:

A method according to claim 1, further comprising:

compiling multiple cleanliness results for an individual environmental services staff member into a personal summary file based upon all environmental surfaces cleaned by the individual environmental services staff member.

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<sup>10</sup> The parties state that the disputed term “cleanliness result” also appears in asserted claims 27, 32, 33, 35, and 36 of the ’395 Patent, and in asserted claims 2, 3, 5, 28, and 29 of the ’453 Patent. (See Joint Statement at 42 n.7 [Doc. No. 45].)

<sup>11</sup> In the Joint Claim Construction Statement, Defendant also argued that the term was indefinite. (Joint Statement at 42 [Doc. No. 45].) Defendant has since withdrawn that argument. (Def.’s Supp. Mem. at 24 n.4 [Doc. No. 48].)

(Compl., Ex. B at col. 9, ll. 50–55 [Doc. No. 1-2]; see Pls.’ Supp. Mem. at 27 [Doc. No. 50].) Plaintiffs also rely on Figures 13 and 14 of the ’395 Patent:

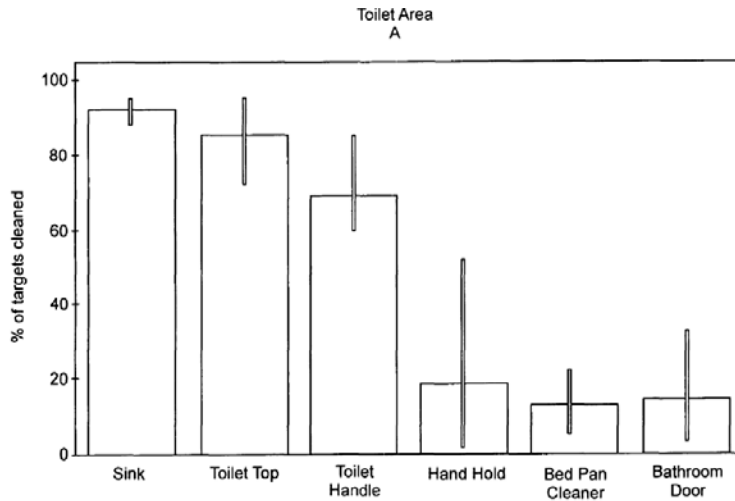


FIG. 13

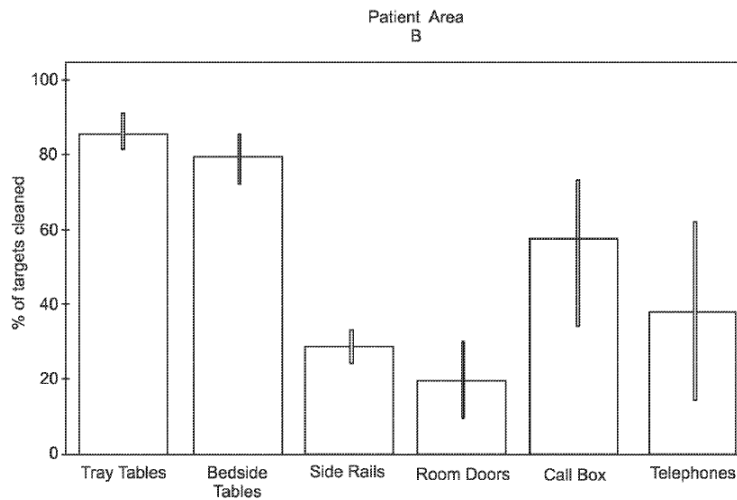


FIG. 14

(Pls.’ Supp. Mem. at 28–29 [Doc. No. 50].) On the contrary, Plaintiffs argue, nowhere in the intrinsic evidence is there support for the proposition that the method described in the Patents-in-Suit consists of measuring the number of microbes on a surface. (Id. at 29.)

Rather, the point of the inventions was to move away from using cultures to count the number of microbes on a surface. (Id.)

In support of its construction, Defendant relies primarily on the applicant's statements made during a reexamination of U.S. Patent No. 7,785,109 (the "'109 Patent"), which is a continuation of the '395 Patent and was issued after the Patents-in-Suit. (See Def.'s Supp. Mem. at 26–29 [Doc. No. 48].) The '109 Patent contains the following claim language:

A method for improving cleaning of an environment comprising:

- (i) applying a transparent marker to one or more target sites located on one or more surfaces within an environment, the transparent marker capable of being viewed when exposed to ultraviolet (UV) radiation;
- (ii) determining if the transparent marker remains on the one or more target sites after one or more opportunities to clean the one or more surfaces by one or more environmental services staff members;
- (iii) establishing a quantitative baseline level of cleanliness for the one or more surfaces within the environment, the quantitative baseline level of cleanliness being based, at least in part, upon steps (i) and (ii) . . . .

(Tsao Decl., Ex. 11 at col. 9, ll. 33–46 [Doc. No. 51-11].) After the patent was issued, it was subject to reexamination, and the USPTO examiner rejected the claims. (See id., Ex. 12 [Doc. No. 51-12].) In his October 3, 2011, Supplemental Response to the office action, the applicant summarized his interview with the examiner:

[The applicant] distinguished the term “cleaning” from “cleanliness” stating that cleaning determines whether a surface has been cleaned by cleaning personnel, whereas cleanliness provides a measure of bacteria on a surface.

(Id., Ex. 13 at 14 [Doc. No. 51-13].) In addition, he amended the claims to replace the term “cleanliness” with the term “cleaning,” (see id. at 2–9), and he submitted a declaration explaining the amendments as follows:

3. Important differences exist between the concepts of “cleanliness” and “cleaning.” “Cleanliness” refers to how clean a surface is. In particular, [other] references measure, or attempt to measure, the amount of microbes on a surface before and after cleaning. Thus, these references are directed to measuring the cleanliness of surfaces. . . .
4. “Cleaning” simply refers to whether a surface has been cleaned, regardless of the level of microbes on the surface when the surface is checked after cleaning. . . .

(Id., Ex. 14 ¶¶ 3–4 [Doc. No. 51-14].) Defendant argues that the applicant’s statements support Defendant’s proposed construction of “cleanliness” and “conclusively establish” the meaning of the term for purposes of construing the ’395 and ’453 Patents. (Def.’s Supp. Mem. at 28–29 [Doc. No. 48].) Finally, Defendant argues that the applicant’s testimony during the course of the present litigation further supports Defendant’s proposed construction: “Cleanliness is the momentary evaluation of the degree of microbial contamination of the surface at that point in time. Cleaning is evaluation, evaluation of cleaning is an evaluation of the process whereby a surface is or is not cleaned.” (Tsao Decl., Ex. 9 at 283:11–15 [Doc. No. 51-9]; see Def.’s Supp. Mem. at 29–31 [Doc. No. 48].)

The Court finds that the claim language and intrinsic evidence support Plaintiffs’ proposed construction of the term “cleanliness result.” First, the language of the claims themselves indicates that a cleanliness result does not involve a determination of the

number of microbes on a surface, but rather refers to determinations of whether the transparent indicator material has been removed from the target sites. For example, claim 1 of the '395 Patent describes a method comprising:

determining if any of the transparent indicator material remains on the one or more discrete target sites on the one or more environmental surfaces after one or more opportunities to clean the environmental surface by environmental services staff, thereby providing a cleanliness result.

(Compl., Ex. A at col. 9, ll. 29–34 [Doc. No. 1-1] (emphases added)). And, claim 1 of the '453 Patent describes a method comprising:

determining if any of the transparent indicator material remains on the one or more target sites of the one or more environmental surfaces after one or more opportunities to clean the one or more environmental surfaces by environmental services staff, thereby providing a cleanliness result.

(Id., Ex. B at col. 9, ll. 41–46 [Doc. No. 1-2] (emphases added).)

Second, while the specifications do not expressly define “cleanliness result,” neither do they mention measuring the number of “microbes” on a surface. Rather, both the “background” and “summary of the invention” sections of the Patents-in-Suit conflict with Defendant’s construction requiring a counting of microbes:

[T]here is a need for a non-microbiological methodology to evaluate the thoroughness with which housekeeping activities are carried out in hospitals.

....

In accordance with one aspect of the invention, a method for monitoring cleaning of a surface includes applying an amount of transparent indicator material to an area of a surface and measuring the amount remaining on the surface.

(Id., Ex. A at col. 3, ll. 11–13, 18–21 [Doc. No. 1-1] (emphases added)); id., Ex. B at col. 3,



ll. 26–28, 33–36 [Doc. No. 1-2] (emphases added).) Third, during prosecution of the ’395 Patent, the applicant pointed to Figures 13 and 14 as supporting the term “cleanliness result.” (See Tsao Decl., Ex. 6 at 14 [Doc. No. 51-6].) As seen above, these illustrations show the percentage of targets cleaned—they make no mention of microbes.

Defendant’s argument that the prosecution history of the ’109 Patent and the inventor’s testimony in this litigation overcome the intrinsic evidence of the Patents-in-Suit discussed above is unavailing. First, the term at issue in the ’109 Patent was “cleanliness,” not “cleanliness result.” Second, Defendant’s reliance on Microsoft Corp. v. Multi-Tech Systems, Inc., 357 F.3d 1340 (Fed. Cir. 2004), for the proposition that the applicant’s statements during prosecution of the ’109 Patent “conclusively establish” that “‘cleanliness’ refers to ‘how clean a surface is’ and ‘provides a measure of bacteria on a surface,’” (Def.’s Supp. Mem. at 29 [Doc. No. 48]), is misplaced. In that case, the court held that the defendant’s statements regarding the scope of its invention made during prosecution of a patent were relevant to the construction of an earlier-issued, related patent. Microsoft Corp., 357 F.3d at 1350. As Defendant notes, the court stated that:

[a]ny statement of the patentee in the prosecution of a related application as to the scope of the invention would be relevant to claim construction, and the relevance of the statement made in this instance is enhanced by the fact that it was made in an official proceeding in which the patentee had every incentive to exercise care in characterizing the scope of its invention.

Id. However, the court also stated that it had previously “rejected the argument that [a] patentee was bound, or estopped, by a statement made in connection with a later application on which the examiner of the first application could not have relied.” Id.

Thus, while the applicant's statements in this case during prosecution of the '109 Patent may be relevant to construction of the claims in the earlier-issued '395 and '453 Patents, they are not binding. Third, as noted above, inventor testimony is considered to be extrinsic evidence and is less significant than intrinsic evidence when determining the meaning of claim language. See Phillips, 415 F.3d at 1317, 1319. Because the applicant's statements regarding "cleanliness" during prosecution of the '109 Patent and in the course of this litigation are inconsistent with the use of the term "cleanliness result" in the claims and the description of the inventions in the specifications and prosecution history of the Patents-in-Suit, the Court finds that those statements are not a reliable indicator of the proper scope of the Patents-in-Suit.

For these reasons, the Court finds that Plaintiffs' proposed construction is appropriate and that "cleanliness result" is properly construed as "an analysis of a collection of cleanliness data for a given environment indicating quality and/or extent of cleaning efforts."

**G. "Resists Dry Abrasion"**

The parties dispute the meaning of the term "resists dry abrasion" as it appears in claim 23 of the '395 and '453 Patents.<sup>12</sup> (See Joint Statement at 49 [Doc. No. 45].) Plaintiffs propose that the Court construe "resists dry abrasion" to mean "[n]ot readily removed through casual contact without the aid of water or cleaning products," while Defendant argues that the Court should construe "resists dry abrasion" as "not readily

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<sup>12</sup> The parties state that the disputed term "resists dry abrasion" also appears in asserted claim 29 of the '395 Patent and in asserted claim 14 of the '453 Patent. (See Joint

rubbed away by friction without the use of a liquid.” (Id.) As acknowledged by Defendant, the only real issue with respect to this claim term is whether “abrasion” means “removed through casual contact,” as promoted by Plaintiffs, or “rubbed away by friction,” as Defendant contends. (Def.’s Supp. Mem. at 42 [Doc. No. 48].)

Plaintiffs argue that their construction is consistent with the claim language and specifications of the Patents-in-Suit. (Pls.’ Supp. Mem. at 30–31 [Doc. No. 50].) Specifically, Plaintiffs point to the claim language, “wherein the transparent indicator material resists dry abrasion,” as indicating that “resists dry abrasion” is a characteristic of the indicator material. (Id. at 30.) Plaintiffs also refer to the specification in the ’395 Patent that states:

The targeting solution dried rapidly on surfaces to leave a residue that was inconspicuous, remained environmentally stable for several weeks, resisted dry abrasion, and was easily removed with moisture accompanied by minimal abrasion.<sup>13</sup>

(Compl., Ex. A at col. 7, ll. 17–21 [Doc. No. 1-1].) Plaintiffs argue that, in order for the material to remain environmentally stable for several weeks, it must not be readily removed through casual contact. (Pls.’ Supp. Mem. at 31 [Doc. No. 50].) Defendant argues that Plaintiffs’ proposed construction does not reflect the plain and ordinary meaning of the term “abrasion” and that the Court should rely on the following general-usage dictionary definition: “a wearing, grinding or rubbing away by friction.” (Def.’s Supp. Mem. at 42–43 [Doc. No. 48] (citation omitted).)

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Statement at 49 n.8 [Doc. No. 45].)

<sup>13</sup> The ’453 Patent contains the same specification language. (See Compl., Ex. B at col. 7, ll. 28–32 [Doc. No. 1-2].)

Because it is part of the intrinsic evidence of record, the specification is a more reliable indicator of the meaning of the claim term than the dictionary definition. See Phillips, 415 F.3d at 1318 (“We have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms . . .”). Indeed, “a general-usage dictionary cannot overcome art-specific evidence of the meaning of a claim term.” Id. at 1322 (citation omitted). While the “not readily rubbed away by friction” portion of Defendant’s proposed construction is consistent with the general-usage dictionary definition of “abrasion,” it is not consistent with the manner in which the term is used in the Patents-in-Suit. On the other hand, “not readily removed through casual contact,” as used in Plaintiffs’ proposed construction, does reflect the context in which the term is used in the specification, which indicates that the material not be amenable to removal by unintentional—or “casual”—contact.

As for the remainder of the proposed definitions, the Court finds that the ordinary meaning of the word “dry” is more accurately reflected by the definition “without the use of a liquid,” than by the definition “without the aid of water or cleaning products.” Even the specification language relied upon by Plaintiffs refers only to “moisture.” Accordingly, the Court finds that certain proposed language from both Plaintiffs and Defendant may be combined together to provide a proper construction, and the Court construes the term “resists dry abrasion” as “not readily removed through casual contact without the use of a liquid.”

## H. “Colorless”

Finally, the parties dispute the meaning of the term “colorless” as it appears in claim 26 of the ’395 Patent. (See Joint Statement at 50 [Doc. No. 45].) Plaintiffs assert that the Court should construe “colorless” as “[w]hen applied to a target site, not distinguishable in hue from the surface to which it is applied.” (Id.) Thus, as with the claim term “transparent,” Plaintiffs argue that the term “colorless” must incorporate a temporal context. (Pls.’ Supp. Mem. at 32 [Doc. No. 50].) Plaintiffs argue that a person of ordinary skill in the art would conclude that the colorlessness of the indicator material matters only when the material is applied to a target site because the specification of the ’395 Patent teaches that the material is made colorless so that it is inconspicuous to cleaning services staff. (Id.) Plaintiffs point to the following language: “A nontoxic composition containing an indicator material which fluoresces with exposure to a black light is inconspicuous yet may be readily removed by housekeeping products.” (Compl., Ex. A at col. 5, ll. 4–7 [Doc. No. 1-1]; see Pls.’ Supp. Mem. at 32 [Doc. No. 50].)

Defendant asserts that the Court should construe “colorless” as “lacking color.” (Joint Statement at 50 [Doc. No. 45].) Defendant states that this definition reflects the ordinary meaning of the word “colorless,” which is defined in a general-usage dictionary as “without color.” (Def.’s Supp. Mem. at 44 [Doc. No. 48].) In addition, similar to its argument in support of its proposed construction of the term “transparent,” Defendant argues that whether the indicator material is “colorless” matters both before and after application. (Id. at 43–44.) According to Defendant, Plaintiffs’ proposed construction is

incorrect because it incorporates a temporal limitation in two clauses (“when applied to a target site” and “from the surface to which it is applied”), both of which indicate that the material must be colorless only after it is applied. (Id. at 44.)

While Defendant’s proposed construction comports with the general dictionary definition of “colorless,” the Court finds that Plaintiffs’ proposed construction better reflects the context in which the term “colorless” is used in the claims and specifications. And, as discussed above, the intrinsic evidence of record is a more reliable indicator of the meaning of the claim term than the dictionary definition. See Phillips, 415 F.3d at 1318. However, as with the claim term “transparent,” the Court declines to construe the term “colorless” in such a manner as to incorporate the temporal limitation proposed by either Plaintiffs or Defendant. Thus, the Court finds that the proper construction of the claim term “colorless” is “not distinguishable in hue from a surface to which it is applied.” While this construction explicitly removes the temporal limitations present in Plaintiffs’ proposed construction,<sup>14</sup> the Court does not mean to imply that there is a requirement that the indicator material be transparent both before and after application, as Defendants propose.

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<sup>14</sup> As noted by Defendant, Plaintiffs’ proposed construction included two temporal limitations: “when applied to a target site” and “from the surface to which it is applied.” In the Court’s proposed construction, the first of the two limitations is entirely omitted, and the second limitation is removed by replacing “the surface to which it is applied” with “a surface to which it is applied.”

**THEREFORE, IT IS HEREBY ORDERED THAT:**

The claims at issue are construed as set forth in this Memorandum Opinion and Order.

Dated: January 23, 2014

s/Susan Richard Nelson  
SUSAN RICHARD NELSON  
United States District Judge